### Programme Themes

Studentship projects will be available in the following areas:

<table>
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<tr>
<th>Theme 1: Genomics for Drug Development &amp; Pharmacogenetics</th>
<th>Theme 2: Genomics for Precision Medicine in Underserved Populations</th>
<th>Theme 3: Genetically Informed Causal Inference and Risk Prediction</th>
<th>Theme 4: Ethical, Legal and Social Implications of Genomics and Genomic Epidemiology Studies</th>
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<td>Drug target discovery, target validation, drug repurposing, enabled with established partnerships with leading pharmaceuticals.</td>
<td>Unique opportunities for novel research with our collaborators in South Africa, Kenya, Ghana, Burkina Faso, Brazil and India.</td>
<td>Methods exploiting genetic data to strengthen causal inference in observational research, and to predict individual risk of disease.</td>
<td>Bringing together our expertise in sociology, psychology, health services research, medical law, and ethics.</td>
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<tr>
<td>Theme Lead: Professor Louise Wain</td>
<td>Theme Lead: Professor Martin Tobin</td>
<td>Theme Lead: Professor Frank Dudbridge</td>
<td>Theme Lead: Professor Natalie Armstrong</td>
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| Previously advertised projects in this theme have included:  
  - The genetic epidemiology of lung scarring  
  - Understanding the genetic basis of radiotherapy toxicity | Previously advertised projects in this theme have included:  
  - Individual and combined effects of genomic variation and environment on lung function and COPD in African populations  
  - Understanding the relationship between human genetic ancestry, the gut microbiome and of their modulation of chronic infection in Cape Verde | Previously advertised projects in this theme have included:  
  - The genetic contribution of biological age differences in disease risk | Previously advertised projects in this theme have included:  
  - Must the relatives be told? Legal and ethical issues in relation to the non-disclosure of genetic information by healthcare professionals to relatives  
  - Representations of genomics and personalised medicine in UK broadcast media |
Programme Routes

The programme offers two different routes to achieve a PhD:

4-Year PhD

Each year, the programme offers:
- Six fully funded UK/EU 4-year PhDs
- Two fully funded 4-year PhDs for candidates from Low and Middle Income Countries (LMICs)

Candidates wishing to apply for this route will have the opportunity to select an available project at the time of application, and can select up to three in order of preference.

Alternatively, candidates may propose their own project. In this case, we would strongly encourage you to co-develop a project with proposed supervisor(s) in advance of your application.

This route is also available on a part time basis.

Students will receive a PhD fee waiver and a stipend for all four years (or part time equivalent) of the PhD.

For full details of the Studentship please see the funding section of the web page.

1-Year MSc + 4-Year PhD

Each year, the programme offers up to two candidates the option to study an MSc programme for one year and then go on to study their PhD for the subsequent four years.

Candidates wishing to apply for this option should apply for the PhD, and make it clear in their application the wish to pursue this option. There is no requirement to choose a project at this stage, but rather a project will be defined under expert guidance during the course of the 1-year MSc.

MSc programmes available include:
- MSc Medical Statistics (with optional specialisation in Genetic Epidemiology)
- MRes Applied Health Research
- MSc Quality and Safety in Healthcare
- MSc Health Data Science (from September 2021)

Students will receive a postgraduate tuition fee waiver for Year 1, a PhD fee waiver for Years 2-5 and a stipend for Years 2-5.

For full details of the Studentship please see the funding section of the web page.
Programme Content

Placements

Placements can take place at any stage of the PhD with our industry partners:

- AstraZeneca
- Genentech
- GlaxoSmithKline
- Pfizer

The programme allows for capacity building in projects addressing global challenges together with low and middle income country (LMIC) supervisors for both UK and LMIC trainees. Our partners include:

- University of the Witswatersrand, Johannesburg, South Africa and AWI-GEN partner institutions in Kenya, Burkina Faso and Ghana. The partnerships will be coordinated via the lead institution for AWI-Gen (University of the Witswatersrand), including:
  - The African Population and Health Research Centre, Nairobi, Kenya
  - Institut de Recherche en Sciences de la Sante, Clinical Research Unit of Nanoro, Burkina Faso
  - Navrongo Health Research Centre, Ghana.
- Laboratory of Genetics and Molecular Cardiology, University of São Paulo Medical School, São Paulo, Brazil
- SSIR Centre for Cellular and Molecular Biology, Hyderabad, India

During a placement, students will have access to:

- Placement supervision or PhD co-supervision from one of our partner institutions
- Travel and subsistence expenses
- Funded placements at the end of the PhD – these can facilitate transition into a research career in a low and middle income country setting

Students can also choose to undertake a placement through The Leicester Institute for Advanced Studies (LIAS).

Skills Development

Each PhD student can tailor their own training pathway to meet their evolving needs and career goals. The programme includes cohort building activities, career coaching, and skills development.

**Subject-specific training** can include:

- Social Science
- Medical Law and Ethics
- Interdisciplinary skills
- Computer Programming
- Statistics

**Workplace skills training** can include:

- Good Research skills
- Project Management
- Leadership skills
- Teamwork skills
- Scientific Writing
Research Culture

Students will join a cohort that facilitates the development of deep and lasting relationships that will create a sense of belonging, peer and professional support and signposting to professional networks to enable effective career planning. An Annual Trainee, Alumni and Supervisor Jamboree will provide a structured forum for developing relationships and professional networks, and for contiguous training and cohort-building specifically for trainees. Students would be involved in shared experiences, including media training, public engagement and social events. Discussion groups and peer-support networks are encouraged through integrated PhD/ECR groups facilitated by the WTISSF, and a Trainee yammer group for informal discussions.

Leicester PhD trainees following this programme will have access to staff services for mental health and wellbeing. We facilitate deep career exploration and preparation, incorporating unique placements alongside a programme of career coaching designed to enhance diversity in biomedical careers. Our Doctoral College aims to develop rigorous and intrepid researchers, with world-class capabilities in the leadership, communication, and impact of research, and prepared for both academic and non-academic careers across the globe.

The University fully supports the programme Leadership Team in delivering this training excellence and best research practice, and will support it to do so in an environment without discrimination, bullying or harassment. The University has transparent procedures including the UoL Dignity at Work Code of Practice and Research Code of Conduct, underpinned by our culture of respect, promoting EDI.

The University has an open access policy for all peer reviewed articles and conference proceedings. A growing data digital archive: "Leicester Figshare" is available for all researchers and PhD students making our research data openly accessible and stored in perpetuity. The University of Leicester has signed the DORA declaration recognising the need to assess research on its own merits rather than on the basis of the journal in which the research is published. A Task Group is now planning how the institution will take practical steps in assessing research. Through Leicester's Wellcome Trust Institutional Strategic Support Fund, we have committed to supporting Open Science and the DORA principles and are planning activities and events, which will be open to this cohort.

Transition Period

This programme will support a transition period at the end of the PhD to provide opportunities for in-depth career exploration and skills development. For example:

- Industry placements for research enabling drug development
- Internships in science communication
- Low and middle income country placements for global health research